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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/726,181

12/01/2003

Paul Vincent Evans

66194-Z CCD

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7590

05/05/2004

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EXAMINER

MORILLO, JANELL COMBS

ART UNIT

PAPER NUMBER

1742

DATE MAILED: 05/05/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No.	Applicant(s)	
	10/726,181	EVANS, PAUL	
	Examiner	Art Unit	
	Janelle Combs-Morillo	1742	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 01 December 2003.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 19-26 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 19-26 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. §§ 119 and 120

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All   b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.  
a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

#### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

**DETAILED ACTION**

***Claim Rejections - 35 USC § 103***

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 19-26 are rejected under 35 U.S.C. 103(a) as being unpatentable over “The effect of process parameters on the fir-tree structure in DC-cast rolling ingots” (hereinafter Brusethaug et al) in view of Sawada (US 5,711,827 A).

Brusethaug et al teaches DC casting a sheet ingot of an Al-Fe-Si alloy consisting of 0.26wt% Fe, and 0.13wt% Si, balance aluminum, wherein no grain refiner is added to said ingot (page 473 2<sup>nd</sup> column). Brusethaug et al is drawn to making offset plates without defects such as fir tree structure (see p 472, “Introduction”). Brusethaug teaches that said ingot is a rolling ingot (see title, p 472 2<sup>nd</sup> column), that is, suitable for rolling into sheet stock.

Brusethaug does not specify: a) forming said ingot into a sheet or b) electrograining the rolled sheet.

Concerning item a), Sawada’827 (who is drawn Al-Fe-Si alloy printing plates, and a method of making said plates) teaches a process of DC casting an ingot (column 5 lines 7-8), and rolling into a sheet product (column 7 line 16), electrograining with an aqueous solution such as nitric acid (column 7 lines 59-62), forming a photosensitive coat thereon (column 9 line 12). It would have been obvious to perform a step of rolling (as taught by Sawada’827) to the rolling

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ingot taught by Brusethaug et al, in order to reduce the ingot into suitable sheet stock because Brusethaug et al teaches that said ingot is a rolling ingot (see title, p 472 2<sup>nd</sup> column), and because Sawada'827 teaches that hot and cold rolling provides suitable reduction to form printing plate sheet stock (see Sawada'827 at claim 1).

Concerning item b), Sawada'827 further teaches electrograining said rolled sheet with an aqueous solution such as nitric acid (column 7 lines 59-62), and forming a photosensitive coat thereon (column 9 line 12). It would have been obvious to perform a step of electrograining (as taught by Sawada'827) to the sheet taught by Brusethaug et al and Swawada'827, because both Sawada'827 and Brusethaug et al are drawn to printing plates, and because Sawada'827 teaches said steps are suitable to prepare an aluminum alloy for a printing plate (see Sawada'827 at column 9 lines 13-18) with good surface and printing performance (Table 6).

Concerning claim 20, Brusethaug does not mention the hydrogen content in said alloy, and therefore Brusethaug is held to teach substantially zero hydrogen is present, which falls within the instant range.

Concerning claim 21, the Fe/Si ratio in the Al-Fe-Si alloy example of Brusethaug is 2.0, which does not fall within the instant Fe/Si ratio range. However, Brusethaug teaches that increasing the Fe/Si ratio to at least 3 helps avoid the fir tree zone (page 472, "Effect of Fe and Si content"). It would have been obvious to one of ordinary skill in the art to increase the Fe/Si ratio to above 3, as taught by Brusethaug, in order to help avoid the fir tree zone (page 472, "Effect of Fe and Si content").

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Concerning claim 22, Brusethaug et al teaches that DC casting the above mentioned alloy (containing no grain refiner) at speed of 90 mm/min produces an ingot wherein the fir tree zone is not observed (seep 473, 1<sup>st</sup> paragraph).

Concerning claims 23-25, because the combination of Brusethaug et al and Sawada'827 teaches an Al-Fe-Si alloy composition without grain refiner that falls within the instant ranges, as well as a process for making said alloy that is substantially the same as the process in the instant specification (including DC casting at a casting rate of 90mm/min and rolling to form a sheet, see above discussion), then substantially the same properties, such as Fe in solution for the sheet product, Al<sub>M</sub>Fe phase, grain size of the ingot, are also expected to occur. The examiner asserts that where the claimed and prior art products are identical or substantially identical in structure or composition, or are produced by identical or substantially identical processes, a prima facie case of either anticipation or obviousness has been established. *In re Best*, 562 F.2d 1252, 1255, 195 USPQ 430, 433 (CCPA 1977). "When the PTO shows a sound basis for believing that the products of the applicant and the prior art are the same, the applicant has the burden of showing that they are not." *In re Spada*, 911 F.2d 705, 709, 15 USPQ2d 1655, 1658 (Fed. Cir. 1990).

### ***Conclusion***


3. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Janelle Combs-Morillo whose telephone number is (571) 272-1240. The examiner can normally be reached on 8:30 am- 6:00 pm.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Roy King can be reached on (571) 272-1244. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0661.

ROY KING   
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 1700

jcm   
May 3, 2004